

WHAT IS CLAIMED IS:

- 1 1. A polypeptide comprising a fusion of a
2 transcription factor, the transcription factor comprising a
3 DNA binding domain, and a retinoblastoma (RB) polypeptide, the
4 RB polypeptide comprising a growth suppression domain.
- 1 2. A nucleic acid encoding the fusion polypeptide
2 of claim 1.
- 1 3. The nucleic acid of claim 2, wherein the
2 nucleic acid is inserted in an adenovirus vector.
- 1 4. The polypeptide of claim 1, wherein the
2 transcription factor is E2F.
- 1 5. The polypeptide of claim 4, wherein the cyclin
2 A binding domain of the E2F is deleted or nonfunctional.
- 1 6. The polypeptide of claim 1, wherein the
2 retinoblastoma polypeptide is RB56.
- 1 7. The polypeptide of claim 1, wherein the
2 retinoblastoma polypeptide is wild type RB.
- 1 8. The polypeptide of claim 1, wherein the
2 retinoblastoma polypeptide comprises from about amino acid
3 residue 379 to about amino acid residue 928 of pRB.
- 1 9. The polypeptide of claim 1, wherein the
2 retinoblastoma polypeptide comprises at least one substitution
3 of amino acid residues selected from the group consisting of
4 2, 608, 612, 788, 807, and 811 of pRB.
- 1 10. The polypeptide of claim 5, wherein the E2F
2 comprises about amino acid residues 95 to about 286.

1 11. The polypeptide of claim 4, wherein the E2F
2 comprises about amino acid residues 95 to about 194.

1 12. The polypeptide of claim 1, wherein the fusion
2 comprises EF2 amino acid residues from about 95 to about 194
3 operatively linked to RB amino acid residues from about 379 to
4 about 928.

1 13. An expression vector comprising DNA encoding a
2 polypeptide, the polypeptide comprising a fusion of a
3 transcription factor, the transcription factor comprising a
4 DNA binding domain, and a retinoblastoma (RB) polypeptide, the
5 RB polypeptide comprising a growth suppression domain.

1 14. The vector of claim 13, comprising a tissue-
2 specific promoter operatively linked to DNA encoding the
3 fusion.

1 15. The vector of claim 14, wherein the tissue
2 specific promoter is a smooth muscle actin promoter.

1 16. A method for treatment of a hyperproliferative
2 disorder in a patient comprising administering to a patient a
3 therapeutically effective dose of a fusion polypeptide
4 comprising a fusion of a transcription factor, the
5 transcription factor comprising a DNA binding domain, and a
6 retinoblastoma (RB) polypeptide, the RB polypeptide comprising
7 a growth suppression domain.

1 17. The method of claim 16, wherein the fusion
2 protein is encoded by a nucleic acid delivered to the patient.

1 18. The method of claim 16, wherein the
2 transcription factor is E2F.

1 19. The method of claim 18, wherein the cyclin A
2 binding domain of the E2F is deleted or nonfunctional.

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1 21. The method of claim 16, wherein the RB is wild
2 type RB56.

1 23. The method of claim 16, wherein the RB
2 comprises at least one substitution of amino acid residues
3 selected from the group consisting of 2, 608, 612, 788, 807,
4 and 811.

1 25. The method of claim 18, wherein the E2F
2 comprises about amino acid residues 95 to about 194.

1 26. The method of claim 16, wherein the fusion
2 comprises EF2 amino acid residues from about 95 to about 194
3 operatively linked to RB amino acid residues from about 379 to
4 about 928.

1 27. The method of claim 18, wherein the E2F -RB
2 fusion polypeptide is expressed under the control of a tissue-
3 specific promoter.

1 28. The method of claim 27, wherein the tissue
2 specific promoter is a smooth muscle actin promoter.

1 29. The method of claim 16, wherein the
2 hyperproliferative disorder is cancer.

1 30. The method of claim 29, wherein the cancer is
2 bladder cancer.

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